

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for detecting transfer errors in an address bus, comprising:

generating a first address parity using a memory address;

scrambling at least two data error-correction-code (ECC) check bits using the first address parity; and

writing the data ECC check bits to a memory, the data ECC check bits enabling detection of transfer errors in the address bus;

wherein the method operation of unscrambling the at least two data ECC check bits is selected from one of using an exclusive-OR function and using an exclusive-NOR function.

2. (Original) The method of claim 1, further comprising:

generating a second address parity using the memory address;

reading the data ECC check bits from the memory; and

unscrambling the at least two data ECC check bits using the second address parity, the data ECC check bits enabling detection of transfer errors in the address bus.

3. (Original) The method of claim 2, further comprising:

executing an ECC operation; and

reporting an ECC error to an exception-handling software if the at least two data ECC check bits signal an error.

4.-5. (Cancelled)

6. (Currently amended) ~~The method of claim 1,~~ A method for detecting transfer errors in an address bus, comprising:

generating a first address parity using a memory address;

scrambling at least two data error-correction-code (ECC) check bits using the first address parity; and

writing the data ECC check bits to a memory, the data ECC check bits enabling detection of transfer errors in the address bus;

wherein the at least two data ECC check bits are selected from the group consisting of two most significant bits and two least significant bits.

7. (Currently amended) A method for detecting transfer errors in an address bus, comprising:

generating a second address parity using a memory address;

reading data error-correction-code (ECC) check bits from the memory; and

unscrambling at least two previously scrambled data ECC check bits using the second address parity, the data ECC check bits enabling detection of transfer errors in the address bus;

executing an ECC operation; and
reporting an ECC error to an exception-handling software if the at least two previously scrambled data ECC check bits signal an error.

8. (Cancelled)

9. (Currently amended) ~~The method of claim 7,~~ A method for detecting transfer errors in an address bus, comprising:

generating a second address parity using a memory address;
reading data error-correction-code (ECC) check bits from the memory; and
unscrambling at least two previously scrambled data ECC check bits using the second address parity, the data ECC check bits enabling detection of transfer errors in the address bus;

wherein the method operation of unscrambling the at least two previously scrambled data ECC check bits is selected from one of using an exclusive-OR function and using an exclusive-NOR function.

10. (Currently amended) ~~The method of claim 7,~~ A method for detecting transfer errors in an address bus, comprising:

generating a second address parity using a memory address;

reading data error-correction-code (ECC) check bits from the memory; and
unscrambling at least two previously scrambled data ECC check bits using the
second address parity, the data ECC check bits enabling detection of transfer errors in the
address bus;

wherein the at least two previously scrambled data ECC check bits are selected from
the group consisting of two most significant bits and two least significant bits.

11.-17. (Cancelled).